Abstract

A configurable adaptive variable length data packet transmission output scheduler for enabling substantially simultaneous transmission on a common transmission link, as of fiber optics, of differentiated services for various different traffic types, executing different QOS algorithms while co-existing in a converged network environment, with simultaneous preserving of the different service characteristics for real-time or high-priority traffic and providing differentiated bandwidth allocation while achieving maximal link utilization -- all through a fine and balanced control as to which type of traffic is transmitted on the link for a given duration, and how much of that traffic is transmitted on the link.